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# Correlates Of Minority Transfer Students Academic Performance And Retention At A Four Year Public Institution

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CORRELATES OF MINORITY TRANSFER STUDENTS  
ACADEMIC PERFORMANCE AND RETENTION  
AT A FOUR YEAR PUBLIC INSTITUTION  
BY  
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Requirements of the degree of Doctor of Education  
Seton Hall University

1999

## ABSTRACT

### CORRELATES OF MINORITY TRANSFER STUDENTS

#### ACADEMIC PERFORMANCE AND RETENTION

#### AT A FOUR YEAR PUBLIC INSTITUTION

BY

PEDRO ZAYAS

This study was conducted in 1993 to explore those factors and experiences that appear to influence the academic performance and persistence of minority students who transferred to a four-year public commuting institution from a two-year college. A questionnaire was administered to 142 minority students (African-Americans and Hispanic) who had transferred to the four-year institution in Fall of 1993 soliciting information on students characteristics, experiences, future plans, and expectations.

Based on the responses from 74 questionnaires, the study found that 46% of participants were of traditional college age (23 or younger). Furthermore, the mean grade point average (GPA) of minority transfer students was significantly higher at the two-year college (2.59), than at the four-year institution (2.34) after one academic year. This decline in GPA suggests that this minority

transfer student cohort may experience transfer shock immediately after transfer.

The study also found that the persistence rate for minority transfer students was 75.7%; hence, 24.3% of the minority transfer students did not persist. The persistence rate for Hispanic students was higher than the persistence rate of African-American students. The non-persistence rate for African American students was also higher than the dropout rate for Hispanic students. The high level of persistence indicated the expressed degree of satisfaction due to the positive academic and social experience with the academic and social systems of the four-year institution over the academic year under study.

In addition, the results of this study support the data of previous studies that focused on transfers' performance during their first year at the new institution. The study also confirmed the findings of other studies that contend that previous academic performance as measured by grade point average is the best predictor of academic performance at the senior institution.

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## Chapter I

### INTRODUCTION

Over the past few decades, two-year colleges have become the fastest growing segment of higher education. For example, between 1977 and 1990 enrollments in two-year colleges grew at a faster rate than in four-year institutions; 28% for the former as compared to 21% for the latter (Gerald & Hussar, 1991). In 1988 it was reported that 51% of all first-time entering freshmen were enrolled in two-year colleges (Boyer, 1988). However, Foote (1997) stated that approximately 42% of the first-time, full time freshmen in the United States began their college career in a community college in 1993-94. Gerald and Hussar (1991) also reported that by the year 2002 enrollments in two-year institutions are projected to increase by 15%. In the State of New Jersey the Commission on Higher Education's web page reported that in the Fall semester of 1997, 38% of the student population was enrolled in two-year colleges as compared to 24% who were enrolled in the state colleges and comprehensive universities. Furthermore, the New Jersey Council of County Colleges' home page reports that community colleges are the largest provider of higher education in the state.

Two trends have emerged over the last few years. The first, is the growing tendency among minority students to

use the community college as an entry point to four-year institutions (Carter, 1990). This tendency has been extensively reported in the literature. Thus, Richardson and Bender (1987) observed that for about half of all minority students, baccalaureate studies are usually completed via transferring from a community college to a four-year institution. Similarly, The National Center for Education Statistics (1990) reported that between 1986 and 1988 minority student enrollment in two year colleges increased by 22% and Hispanic student enrollment increased by almost 13%.

Evangelauf (1990), also noted that since the 1980's, minority students were more likely to attend two-year colleges than were White students. Furthermore, in 1990, 38% of White students enrolled at such colleges as compared to 55% of Hispanics and American Indian students, 43% of African American students, and 40% of Asian students. King's (1996) remarks at the New Jersey Advisors Conference coincided with Evangelauf's observation on minority student enrollment. The author observed that approximately 56% of Hispanic undergraduates, 54% of Native American undergraduates, 42% of African American undergraduates, and 40% of Asian undergraduates are enrolled in community colleges. Similar trends in minority student enrollment in



two-year colleges have been reported elsewhere in the literature.

Triplett (1993) noting that one of every four students enrolled in the nation's two-year colleges is nonwhite, stated: "Minority students are much more likely than Whites to attend two-year colleges. Fifty-two percent of all African-American undergraduates and 60% of all Hispanics choose a two-year college when making a decision to enter higher education" (p. 140). According to Cohen (1996), even higher proportions of all students who begin college in America are made up of underrepresented minorities matriculated at community colleges.

Creech (1995) also noted that at a typical public two-year college in the Southern Regional Education Board region, one of four students is not white. He also noted that 40% of Black and 53% of Hispanic students attend two-year colleges. According to Anglin, Davis and Mooradian (1995) approximately 22% of all students enrolled in community colleges are minority students. This percentage has gradually been increasing over recent years with a steady increase of Hispanic and a slight decrease in African American students. More recently, King (1996) observed that the minority student population accounts for about 30% of community college enrollment. Similarly, the Chronicle of Higher Education Almanac (1997) placed the proportion of

enrollment made up of minority students at public two-year institutions at 29.9%. More specifically, the Chronicle of Higher Education (1997) reported that in the State of New Jersey, the proportion of enrollment made up of minority students at public two-year colleges is 30.3% as compared to 28.9% of the enrollment in four-year institutions.

Foote (1997) observed that approximately 46.4% of all minorities enrolled in higher education are attending two-year colleges. This is consistent with the projections made by Gerald and Hussar (1991) from the National Center for Education Statistics. The authors observed that the enrollment of minority students in institutions of higher education are projected to grow at a faster rate than the enrollment of Whites and Blacks of non-Hispanic origin between 1990 and the year 2002.

Minority students are not only more likely to enroll in two-year colleges, they are also more likely to regard the two-year college as a first step in the higher education pipeline. Existing evidence in the literature suggests that a significant number of minority students view the two-year college as a stepping stone to four-year institutions. Kerschner (1990) reported that almost 80% of minority students who are enrolled in California's post secondary institutions are in California community colleges. Watkins (1990) also reported that one-third of the students in two-year colleges plan to continue their education in a four

year institution; Carter (1991), observed that this figure was consistent with that reported in the National Longitudinal Study of 1980 high school graduates. That study reported that 30% of 1980 high school students who entered two-year colleges transferred to four-year institutions.

Triplett (1993), observed that this rapid growth in enrollment did not result in a commensurate increase in the number of degrees awarded, and that, most students who enrolled did not earn an associate degree. In this regard, she noted that while enrollment in two-year colleges in states served by the Southern Regional Education Board (SREB) increased by more than 40% in 1980, the number of associate degrees increased by only 26%. One possible explanation for this can be inferred from the results of a study conducted by Rendon, Justiz, and Resta, (1988). Students at six community colleges in Texas were surveyed by the authors who found that 87% of Hispanic students and 94% of White students planned to transfer to four-year institutions either after or prior to receiving an associate degree.

Despite the increased minority presence in two-year colleges and documented evidence of transfer aspirations, minority transfer students are less likely to experience academic success once enrolled at a four-year institution. According to the National Longitudinal Study of Fall 1980 high school seniors, only 9% of African Americans and

Hispanics (respectively), in that cohort who transferred to four year institutions received a bachelor's degree within 6 years as compared to 19% of their White counterparts.

In contrast, 26% of African Americans and Hispanics who entered four-year public institutions directly from high school completed their bachelor's degree within 6 years as compared to 48% of their white counterparts. Thus, while minority students are increasingly using two-year colleges as gateways to four-year institutions, their attrition rates are higher than that observed among for their counterparts who enter four-year institutions directly from high school. Similar low retention rates are reported elsewhere in the literature (Anderson, 1981; Avakian, McKinney & Allen, 1982). More recently Anglin, Davis and Mooradian (1995), compared transfer and native students' graduation rates at Kent State University. They found that an alarming 70% of minority students exited Kent State University during the first year.

A second emerging trend is the increase in the proportion of new transfer students to first time freshmen in many four-year institutions. One explanation for this, may be the decline in the traditional pool of first time freshmen (high school graduates). The National Center for Education Statistics (1997) reported that in 1994, 39% of those community college students who were identified as prospective transfers actually made a direct transition to a

four-year institution. It was also reported that another six percent entered a four-year institution after an intermediate transfer to another subbaccalaureate institution (National Center for Education Statistics, 1997). Thus, while the actual transfer rate has declined, (Grubb, 1991) the proportion of transfer to freshmen students has increased, as many institutions turn to the transfer student as an alternative source at a time when traditional sources are decreasing.

As a consequence of relying on transfer students, many public four-year institutions are entering into articulation agreements with the public two-year and community colleges within their state. New Jersey has also experienced an increase in the proportion of transfer students to freshmen over the past few years. For example, a report from the New Jersey State Board of Higher Education (1992) indicated that in 1988, the growth of students transferring to four-year institutions was almost 8 times that of the growth of total undergraduate enrollments. In addition, the report stated that systemwide, the number of students transferring to four year institutions increased by 18% between 1989 and 1990, as compared to an overall increase of two percent for total undergraduate enrollment in that same period.

At the institution at which this study was conducted, the data showed that full time transfer students increased from 25.7% in 1989 to 40% in Fall 1994. Over this same

period there was a proportional decrease in the number of first time full time freshmen. Almost 30% of the new transfers are African American and Hispanic students and come from the state's two-year community colleges. Yet, despite the institution's increase in enrollment of minority transfer students, these students experience less success at the institution than their majority group counterparts. The Institution's Office of Institutional Research reported that while the average six-year graduation rate for all transfers is about 55%, it is about 25% for African American and Hispanic students.

Furthermore, the institution appeared less successful in retaining these students. For example, the average retention rate for all transfer students after three semesters is 79% but about 60% for African American and Hispanic transfer students. The institution's experience with its transfer students is mirrored nationwide. This is a cause of great concern, both for the minority students for whom transfer has become the major access route to a baccalaureate and for the institution itself since retention of these students is important to institutional survival.

#### Statement of the Problem

The research on retention and academic success suggests that academic performance and persistence of minority transfer students who first enroll in four-year institutions

is influenced by such factors as pre-enrollment characteristics of transfer students, as well as their experiences once enrolled in the institution. In addition, the students' expectations of the institution and their level of integration within the social and academic climate play a role in persistence and ultimate success.

Within these contexts, the purpose of this study was to determine those factors that appear to influence the persistence and success of minority students who transferred to this particular institution from a two-year college. The research has three specific objectives:

- 1) To determine those pre-enrollment characteristics which appear to be most closely related to minority transfer students' persistence and academic success at the institution.
- 2) To identify those characteristics which appear most influential on minority students' persistence and academic performance.
- 3) To identify those aspects within the social and academic environments that are related to minority transfer students' persistence and academic performance.

### General Hypotheses

This study developed and tested four hypothesis:

1. There is no relationship between minority transfer students pre-enrollment characteristics, and retention and academic performance.
2. There is no relationship between minority transfer students' level of academic integration, previous grade point average (GPA), and academic performance.
3. There is no relationship between minority transfer students' academic performance at the two-year college and their performance after one year at the transfer institution.
4. There is no relationship between minority transfer students level of social integration, and academic performance and persistence.

### Definition of Terms

For the purpose of the study, the following definition of terms were used:

1. Academic integration is defined as the degree to which the minority transfer student interact with the academic environment and share the academic policies and procedures, the faculty, and academic support programs offered by the institution in his/her academic performance and intellectual development.



2. Social integration refers to the extent to which the minority transfer student participates in the extracurricular activities offered by the institution.
3. Goal commitment is defined as the minority transfer student's intention to complete a four-year degree.
4. Attrition, withdrawal and dropout were used interchangeably. They refer to new minority transfer students who enrolled in the Fall 1993, and failed to register for either the Spring 1994 or the Fall 1994 semesters, either voluntarily or as a result of academic probation.
5. The terms persistence and retention were used interchangeably and refer to new minority transfer students who enrolled in the Fall 1993 and returned for the Spring 1994 and the Fall 1994 semesters.
6. New minority transfer students refer to students who transferred from a New Jersey two-year college to this four-year institution in the Fall 1993.
7. The term minority student refers only to African American and Hispanic students who transferred to the institution in the Fall 1993.
8. The term community college and two-year college is used interchangeably throughout the study and refer to two-year public institutions only.

### Limitations of Study

This study is limited in scope since it was conducted in a single commuter institution using a one-year sample. Hence, the ability to generalize the findings beyond this institution or the population from which the sample was drawn is restricted. The study was limited to a survey of 74 Black and Hispanic students, who transferred to the institution in the Fall semester of 1993. Only those students who transferred from a New Jersey two-year college were surveyed. This study was exploratory in nature and limited in that it focused on two minority groups (African Americans and Hispanic) in a predominantly White institution. The findings may not apply where these two groups of students are a majority. Furthermore, these findings may not apply to other groups of students or to the students who did not respond the questionnaire.

### Significance of the Study

The present study was exploratory in nature. While no attempts were made to develop a model, it examined those factors that the existing literature has found most influential in explaining academic success and persistence, particularly for minority transfer students. Although the research literature on college students' academic performance and retention has experienced a rapid growth over the years, much of this research has been largely

focused on residential institutions using freshmen and regular transfer students. Few studies have been conducted to address the issues of retention and academic performance for other populations, particularly minority transfer students. Uncertainty still exists about what interaction processes lead students of different racial backgrounds to withdraw from college. Thus, there remains a critical need to determine the reasons for attrition and poorer academic performance of minority students, particularly transfer students.

In practical terms, the factors identified should be useful for purposes of replication studies and for development of explanatory models. Since improving retention rates is directly related to institutional survival, the institution's policy makers might also find the results of this study a helpful tool for developing programs or policies aimed to improve the minority transfer students' retention and academic performance. It is also expected that the results of the study will add to the body of literature on minority transfer students.

#### Summary of Remaining Chapters

Chapter II is a review of the relevant literature. The methodology is presented in chapter III, and includes a discussion of subjects, data collection, hypotheses and data analysis. The results and a discussion of the findings of

the study are presented in Chapter IV. Chapter V contains conclusions, implications, and recommendations for further research.

## Chapter II

### REVIEW OF RELATED LITERATURE

#### Related Literature

The literature on student attrition is extensive. It spans over more than 40 years of empirical investigations, which focused on the factors that differentiate persisters from non-persisters. Despite the fact that studies investigating the numerous variables identified as related to persistence produced contradictory and inconclusive results, these earlier correlational studies were able to establish associations between selected students and institutional characteristics allowing researchers to hypothesize some kind of relationship between the variables under study.

In the reviews of the early literature many scholars identified two major outcomes of early research efforts (Pantages & Creedon, 1978; Terenzini & Pascarella, 1980; Tinto, 1975). First, they observed that the results of earlier studies demonstrated that there was no single factor that explained why students decide to drop out of college. Second, they noticed there was no typology of the student who is most likely to drop out. In other words, students who drop out are not homogeneous in terms of either pre-college characteristics, reasons for attrition or probability of continuing in higher education.

During the 1970's, Spady (1971) and Tinto (1975) shifted their research away from correlational studies to the development of theoretical models to explain college student attrition. This effort was followed by Bean's research (1980, 1983). Tinto, (1985), Pascarella and Terenzini, (1983); Cabrera, Nora and Castenada, (1992), Cabrera, Nora and Castenada, (1993), also noted that most studies have focused mainly on the traditional student. However, despite the increase in studies focusing on minority students and the large body of extant literature examining students' experiences at two-year colleges, very few studies exist which have examined the academic, social and psychological effects of four year institutions on transfer students, particularly minority transfer students. Hence, the literature review will focus on models of student attrition, and transfer student retention and academic performance.

#### Models of Student Attrition

Tinto (1975) based his model on Durkheim's theory of suicide and social integration, while Bean's (1980) model is based on theories of employee turnover in industry. This section of the literature review will discuss the theories and then examine studies, which have attempted to validate these models. Tinto's model view student attrition as an ongoing process involving a complex series of social and

psychological interactions between the student and the institution.

According to Tinto's (1975) theory, the student brings certain characteristics to the institution such as family background, personal attributes and experiences. These are presumed to influence both academic performance, initial goal levels, and level of commitment to the institution. These characteristics and the level of commitment they influence will in turn interact with the various structural and normative characteristics of the particular institution. These interactions lead to varying levels of integration into the institution's academic and social systems. A higher degree of integration of the individual into an institution's systems results in greater commitment to the specific institution, and the goal of college completion is expected.

Bean's (1980) model while consistent with that of Tinto, was derived from studies of turnover in the workplace. According to Bean (1980), student attrition is analogous to turnover in work organizations; that is, students leave an institution for reasons similar to those that cause employees to leave work organizations. In the development of his model, Bean identified four categories of variables which he hypothesized were most responsible for attrition/retention. These categories were satisfaction,

institutional commitment, organizational structure, and student background.

While these models differ in their focus and methodological approaches, they share four basic components: student pre-enrollment characteristics, social interactions with faculty and peers, extent of success with the institution's academic system, and institutional characteristics. Empirical evidence using the Tinto and the Bean models is discussed below.

#### The Tinto Model

Pascarella (1977, 1979, 1980, 1982), Pascarella, and Chapman, (1983), Pascarella, Duby & Iverson (1983), Pascarella, Duby, Miller, and Rasher (1981), Pascarella & Terenzini (1980), Baumgart and Johnston (1977) and Terenzini, Loran and Pascarella (1981) have most extensively investigated Tinto's models. Terenzini and Pascarella (1980) conducted a series of 6 studies at the University of Syracuse to test the construct validity of Tinto's model. The studies were conducted between the fall 1974 and the fall 1976. All except one study was longitudinal. Four of the 6 studies addressed the construct of the total model, while two studies focused on one of the components of the model. The authors obtained a variety of results:

1. In all of the studies the authors failed to find statistically significant differences between persisters and dropouts on any of the various pre-



college characteristics. This was a direct contradiction to the conceptual importance given student background characteristics in Tinto's model. However, the authors did observe that such traits appeared to be influential when in interaction with students' experiences at the institution.

2. Social and academic integration, when controlled for, contributed significantly to the explanation of variances observed between persisters and dropouts. In two of the studies the influence of social and academic integration was quite powerful. That is to say, even after students' initial differences were controlled, these two variables accounted for the greatest amount of variance observed between persisters and dropouts.

3. The sex of student also appeared to exert some influence on retention/attrition. In one study academic integration was more important for men and social integration was more important for women.

4. Contradictory results were obtained in two of the studies for the relative importance of social and academic integration.

5. In 4 of the studies, frequency and setting of faculty--student contact were found to be the most or second most important influences on attrition.

The authors drew the following major conclusions:

1. Social and academic integration was found to have modest but statistically significant associations with freshman attendance patterns.
2. One fourth of the variance in attendance behavior can be explained by Tinto's concept of social and psychological dynamics. Students' pre-college attributes are not in themselves significant factors in subsequent attendance patterns or number of hours earned at the end of each semester or at the end of the academic year. They appear to be important only when in interaction with the students' experiences at the institution.
3. Frequency, nature, and quality of faculty--student interactions outside the classroom are positively related to retention.

The authors concluded that attrition was far more complex than previous research suggests, and that the results of such studies yielded only an oversimplified picture of what seems to be a highly complex process.

Pascarella and Terenzini (1980) attempted to predict freshman attrition using Tinto's (1975) model on a 34 item measure designed to operationalize the constructs of social and academic integration, and institutional and goal commitments. Five scales were developed from the variables. They included institutional and goal commitments, quality of faculty-student interactions, and faculty concern for

students and teaching. The results indicated that the measure had a substantial predictive validity (75% of persisters and 76% of voluntary dropouts were correctly classified).

Terenzini, Lorang and Pascarella (1981) replicated Pascarella and Terenzini's (1980) study to determine whether the earlier findings would hold true for students attending a large public state institution. The second study was identical to the earlier study with respect to design, population sampling and procedures, variables and analytical procedures. The major difference was type of institution (large public as opposed to private residential). The results indicated an almost perfect replication.

In the earlier study the five factors explained 44.4% of the total variance as compared to 44.6% of the total variance in the replication study. In both studies pre-college characteristics made non-significant contributions to the explanation of variance in attendance. The percentages of cases correctly classified as persisters and dropouts were quite similar across both institutions. The authors viewed this finding as perhaps the most significant, since it suggested that the measure may be useful in developing specific equations for individual institutions.

Getzlaf, Sedlacek, Kearney and Blackwell (1984) also tested the validity of Tinto's (1975) model, using longitudinal data and a 6-month post-withdrawal definition

of attrition. The purpose of the study was not only to test the validity of the Tinto model but to determine its utility in differentiating between two types of attrition: dropouts who transferred to another college and complete dropouts. The authors identified former Washington State University students who did not return after the end of the freshman year but were in good academic standing.

Getzlaf and colleagues (1984) developed a questionnaire using variables that were related to attrition; this relationship was supported in the literature. It also included items designed to obtain information from the former students about their academic, social and personal plans. The questionnaire was sent to 388 dropouts 6 months after they dropped out.

Five of the 7 constructs in the Tinto (1975) model were operationalized using background and attitudinal variables collected from students when they first enrolled. The researchers placed students in one of two groups based on their responses about future plans; they were classified as either dropouts or transfers. Setwise discriminant function was then used to test Tinto's model. The results indicated that 30% of the variance observed between transfers could be explained by group membership in 4 of the 6 constructs used (academic integration, social integration, institutional commitment and goal commitment). The authors concluded that Tinto's model was a conceptually and empirically useful

framework for studying attrition. Their results differed from that of Pascarella and Terenzini (1980) in one respect; the latter found that pre-college characteristics did not contribute uniquely to attrition.

Contrasting the preceding findings, Getzlaf and associates (1984) found that when academic aptitude and previous college performance are controlled, changes in cumulative GPA from high school to college differentiated persisters from dropouts. They suggested that this change was an aspect of Tinto's (1975) construct of academic integration. The authors also found that Tinto's model was quite useful in differentiating dropouts from transfers. They found that total dropouts had lower academic performance and greater dissatisfaction with course requirements than transfers. This was interpreted to mean that the former had lower goal commitment. Another important finding was that total dropouts placed heavier emphasis on personal reasons for leaving, suggesting a lower social integration level. Transfers on the other hand, demonstrated lower institutional commitment citing disliking the college atmosphere and the nature of the institution as major reasons for leaving. The authors concluded that Tinto's model was a model of higher education attrition, and not merely of institutional attrition.

Several other studies supported Tinto's model. However, most of these studies were conducted in residential

institutions using freshman. Very few studies have tested the validity of this model for minority students. Thus, a limitation of Tinto's model is that while the model appears to hold true for freshmen enrolled in residential institutions, few studies had been conducted to determine its utility for other populations, particularly its validity for minority and transfer students. Tinto (1975) observed: "We simply do not know enough about the processes of interaction that lead individuals of different racial backgrounds to drop from higher education. Nor do we know enough about how these processes relate to differing academic and social integration or how they vary between institutions of different academic and social characteristics" (p. 119). More recently, Braxton, Sullivan, and Johnson's (1997) research suggested that the Tinto model has been inadequate in addressing the integration experiences for minority students in increasingly multiracial-ethnic environments.

While few studies have addressed the issues discussed above, some have surfaced which attempted to determine the effect of race/ethnicity on those factors that, according to the literature, affect retention. Terenzini and Pascarella (1978) and Pascarella and Terenzini (1980) conducted two studies comparing factors that influence Black and White students' persistence/ attrition behaviors. Findings from these two studies were contradictory. In the first study

(Terenzini & Pascarella, 1978), the authors found that perceived intellectual development was a more important influence on freshman year retention for White than for Black students. On the other hand, attitudes toward the institution had more influence using different samples of students on Black student retention than on White student retention.

Quite different results were obtained in the second study (Pascarella and Terenzini, 1980). This study used a different sample of students from the same institution. The authors found no significant differences between White and Black students in pre-enrollment characteristics, social integration, academic integration, and performance, factors which the model had hypothesized to affect voluntary freshman withdrawal.

Similarly, Nora (1987), in a study to test the validity of the Tinto model, found that the results were not supportive of Tinto's finding that institutional goal commitment was important only when mediated with academic and social commitment. Nora administered a questionnaire measuring the twin construct of academic and social integration to 1,786 Hispanic students at three community colleges in Southern Texas. The results indicated that institutional/goal commitment accounted for 40% of the variation in academic integration and for a major proportion of the variance in social integration. Institutional/goal

commitment accounted for the largest proportion of the variance in retention.

Conversely, Gosman, Dandridge, Nettless, and Thoney (1983) found that for Black students, the influence of the constructs academic and social integration was mediated by the race/ethnic composition of the institution. The influence was useful for predicting Black student retention in predominantly White institutions. Conversely, pre-college characteristics and academic performance were the best predictors for Black students in predominantly Black institutions.

Donovan's (1984) results were quite different from those Gosman and associates (1983). She used a path analysis to examine the process of persistence in higher education of a sample of 403 low-income Black students. The model used was adapted from the Tinto model and explored the role of college experiences, academic and social integration, and academic achievement. Donovan found that 32% of the variance in persistence was explained by academic performance (academic performance was used to operationalize the construct, academic integration). Unlike Gosman and associates (1983), she found that pre-college characteristics had little effect on persistence in both Black and predominantly White institutions.

Smith and Allen (1984) however, found a close relationship between institutional characteristics and



persistence of Black students. In the discussion of the results of a study designed to develop a model of Black students academic performance and persistence in higher education, the authors observed that "there is something about organizational operation of educational institutions which is differentially related to the academic achievement of Black students" (p. 222).

Several other studies that have investigated the validity of the Tinto (1975) model have produced conflicting results for groups, such as commuter and minority students. Nonetheless, these studies have supported the predictive validity and importance of the two constructs of academic and social integration (Bean, 1980; 1982; 1985; Munro, 1981; Pascarella and Terenzini 1980; 1983). However, there are certain limitations evident in Tinto's model. Thus Cabrera, Nora and Castenada (1992), in examining Tinto's model, pointed out that, "A major gap in Tinto's theory and allied research has been the role of external factors in shaping perceptions, commitment and preferences" (p. 124).

Similarly, Bean (1982) noted that Tinto's failure to take into account behavioral intentions was a major flaw in his model. Bean proposed that behavioral variables such as intention, prior experience, and students' beliefs should be major components of the model. He found that a student's intention (intent to leave) played a significant role in a final decision when in interaction with the student's

academic and social experiences at the institution. Bean and Vesper (1990) in a study of the relationship between environmental and personal variables found that non-intellectual factors such as family, friends, work, and course satisfaction also had a direct influence on a student's decision to drop out.

Cabrera, Nora, and Castenada (1992) modified both Tinto's (1987) and Bean's (1982) models and added organizational, environmental and intention variables. Their findings displayed considerable overlap between the former three variables and students' intentions toward the institution. In a more recent study, Cabrera, Nora, and Castaneda (1993), suggest an integrated model that would merge both Tinto's and Bean's models. Their model hypothesized a structural relationship between academic and social factors which were in turn modified by external factors and the student's own intentions.

More recently, Hurtado, Faye Carter, and Spuler (1996) proposed a reconsideration of some of the central assumptions contained in Tinto's (1993) revised model of student's departure. Similarly, Milem and Burger (1997), in investigating the relationship between Asting's theory of involvement and Tinto's model also suggested an integrated model in which students behaviors and perceptions interact to influence the development of academic and social

integration. In summary, while Tinto's model has proved quite useful, there are apparent limitations:

1. Most studies using the Tinto model have been conducted in residential institutions.
2. Few studies have investigated the validity of the model for minority students.
3. Most studies testing the validity of the model have not attempted to test causal links between constructs.
4. The model makes no provision for factors not associated with student-institutional fit, such as financial aid and transfer status.

#### The Bean Model

In response to the limitations observed in Tinto's (1975) model, particularly the issue of causality, Bean (1980) developed a model of student attrition from one originally suggested by Price (1972). Bean's model contained 10 variables that measured the students' interaction with the institution (grades, utility of program, sense of development, boredom, friendship, role as student, participation in decision making, availability of required courses, fair treatment, and membership in campus organizations). These variables were all expected to influence satisfaction, and decrease student's decisions to leave an institution.

Bean tested his model in 1980 using multiple regression and path analysis techniques and obtained the following results:

1. The most important determinants of attrition/retention for male students were, in order of importance, goal commitment, high school performance, academic performance, boredom, and familiarity with the institution's social and academic expectations.
2. On the other hand, the most important determinants for women in order of importance, were institutional commitment, high school performance, membership in campus organizations, goal commitment, and faculty--student interactions.

Bean (1982) expanded the model to include another variable, intention. Working from the premise that attitudes, norms, and past behaviors directly influence future behaviors, Bean hypothesized that the decision to withdraw from an institution is influenced by past behaviors, which are mediated by intent. This hypothesis departed radically from Tinto (1975), who identified institutional commitment as the final mediating variable before withdrawal.

Bean (1982) tested his model to determine the interactive effects of intentions and confidence on student attrition. The independent variables used in the study were intent to leave, grades, opportunity to transfer, practical

value of education, certainty of choice, loyalty, family support, courses available, student aspirations, and major. The model was estimated on 1,574 college freshmen. The results of a path analysis revealed that the single most important predictor of attrition was intent to leave. This predictor was followed, in descending order of importance, by grades, opportunity to transfer, practical value, loyalty, family support, student goals, and certainty of major and career.

In a later study, Bean (1985) increased the predictive and explanatory strength of the model by the introduction of the concept of the dropout syndrome. He defined the dropout syndrome as a combination of intent to leave, discussing leaving, and actual withdrawal. The model was tested using a path analysis. The results indicated that the intervening variables college grades, institutional fit and institutional commitment, were the best predictors of dropout syndrome.

The findings of Bean's (1985) study suggest that students' peers were more influential in social integration than faculty--student interactions. The importance of Bean's model lies in the fact that he was able to trace the progress of attrition from intention to actual withdrawal behavior. This makes the model more useful for institutions planning to develop retention programs. The value lies in the fact that knowledge of intent increases the predictive

validity, in a more powerful way than did Tinto's (1975) construct. The latter, while allowing for a better explanation of the factors associated with attrition, tends to operate in a post-fact manner.

This above stated observation is supported in a study conducted by Cabrera, Nora, and Castenada (1993). The results of their study suggested that the influences of organizational and environmental variables are mostly channeled through student intent to persist. In an examination of both Tinto (1975) and Bean's (1985) models, the authors observed that their constructs were similar and measured basically the same things. They suggested an integrated model which would merge both Tinto's and Bean's model.

#### Research on Transfer Students' Academic Performance and Retention

Studies that have examined the academic performance and retention of transfer students have looked at such variables as student pre-enrollment characteristics, type of program at the two year college, and academic performance at the two year college to name a few. Results of these studies have been mixed. Some studies have reported that transfer students experience success, while others have produced negative results. Now that the traditional importance community colleges placed on vocational education has surely

decline (Pinland, 1995), and the emphasis is being placed on the transfer rate calculations for accountability purposes (Hirose, 1994), a renewed emphasis on the student transfers is at the forefront. The preparation the transfer student received at the community college, exceeding initial expectations, and maturing prior to transferring, all contribute to a more successful transition to a senior institution (Pinland, 1995).

The preliminary review of the literature indicated that a number of variables have been used to attempt to explain four-year institution performance and retention of transfer students. In a study to determine the relationship between transfer student's characteristics and their attitudes and performance, Holahan and Kelley (1978), surveyed approximately 5,000 transfer students. They used the University Adjustment Scale to measure attitudes, and expected GPA to measure academic performance. Eleven factors were derived from the University Adjustment Scale, including Social Life, Institutional Support, Academic Competence, Academic Atmosphere, and Lack of Personal Problems. The results indicated that the characteristics of the student as well as the characteristics of their two-year college differentiated among students' attitudes as well as expected GPA.

Donato (1973) examined the effects of four-year institution's environments on performance and persistence of transfers. He particularly focused on transfer students' expectations of the four-year institution. The author examined transfer and native students' perceptions of several aspects of the four-year institution including Intellectual Climate, Student Dignity, Social Climate and Academic Climate. The results indicated that transfer students tended to hold unrealistic expectations of the institution, in particular their expectations of the intellectual, academic and social climate. The author hypothesized that such unrealistic expectations may have an effect on transfer student's adjustment to a four-year college environment and that they experienced what Hill (1965) termed transfer shock.

Nolan and Hall (1978) conducted a five-year follow-up study to determine how well community college students had been prepared to compete with native students at four-year institutions, and if these students experienced the transfer shock described by Hill (1965). They used grade Point Average (GPA) as the dependent variable. Their findings indicated that transfer students experienced an average transfer shock of 2.6. More recently, Diaz (1992), in an in-depth meta-analysis of the transfer shock phenomenon identified 62 studies that reported evidence of this



phenomenon, and its implications on the academic performance and persistence of transfer students.

Despite the documented transfer shock evidenced in the literature there is no doubt that transfer students can succeed in the university environment. As Pinland (1995) pointed out, "The ones who do make the transition to a senior institution are demonstrated winners. Their prior academic accomplishments at the community college level and high levels of motivation may provide them with the foundation to persist to graduation" (p. 41).

A previous study of transfer students continuation and graduation rates conducted at the San Diego State University in California (1993) confirmed Pinland's (1995) comments on transfer students' success at a senior institution. The study compared transfer students' GPAs with those of native students at San Diego State University. The results indicated that transfer students evidently succeed even when they compete with a group of more selected sophomore or junior native students. Palmer, Ludwig, and Stapleton (1994) also suggested that students who successfully transfer to baccalaureate-granting institutions are as competent as students who begin their post-secondary education at four-year institutions.

The transfer issue takes on particular significance when applied to minority students. These students experience

less success than their majority group counterparts in both two-year and four-year institutions. They are also less likely to persist to graduation. For example in a study undertaken by the California State Post Secondary Education Commission (1985) it was reported that out of a total of 5,137 students who transferred from a California community college to the University of California, only 8.3% were Mexican American and 3.8% were African Americans. In addition, Blacks and Chicanos experienced the greatest dropout rate.

Pinland (1995) conducted a study on community college transfer students who earn a bachelor's degree. The study indicated that one out of every four students who transferred to San Diego State University in 1987 was a minority student. By 1992, the ratio had increased to one out of three.

Concern over low graduation rates of minority transfer students over the years has prompted researchers to examine the influence of students and institutions on student's academic performance and persistence. Pre-enrollment characteristics, academic goal commitment, academic and social integration, among other variables were explored by scholarly research in an attempt to address this issue. As previously stated, minority students are the largest segment of the community college student population; however, they

are unequally represented in four-year institutions and they are less likely to graduate with a baccalaureate degree.

As pointed out by Padilla, Trevino, Gonzalez, and Trevino (1997), "Clearly, too many minority students continue to leave colleges and universities before completing a degree" (p. 125). The authors contended that, despite the presence of a larger number of minorities in the U.S. population, the pattern of degree completion for minority students has been consistent for more than a decade (40% for African American Students, and 47% for Hispanic students).

At the same time, college persistence, as presented in the review of the literature of this study, is a very important variable by which success at a four-year institution is measured. This variable has taken particular significance for minority students who transfer from community colleges, due to the declining persistence rate, particularly for Hispanic and African American students (Aston and Nuez-Wormack, 1990).

Thus, the understanding of the factors influencing minority transfer students' academic success and persistence has become a critical issue for policy makers and researchers alike. Kraemer (1997), in a study to operationally define academic integration and social integration to fit a Hispanic two-year college population,

documented the importance of academic and social integration as key factors in the persistence process. Kraemer's study confirms what other studies have found.

On the other hand, although Nora (1987) attributed the same importance to academic and social integration, her study on Chicano community college students could not demonstrate any effect of social integration on persistence. In addition, the results of Nora's study were minimally supportive of Tinto's (1987) model of student departure in demonstrating the effect of academic integration on the persistence process. However, Tinto (1998), places academic integration as the central piece underpinning the persistence process. Similarly, both academic integration and social integration are significant factors that affect students' pre-disposition to transfer when mediated by institutional and goal commitment (Nora & Redon, 1990).

Other studies have observed the same trends, and have attempted to determine the major factors that appear to influence minority transfer students' success at the four-year institutions. The factors found to be the most useful predictors of persistence and academic success of these students were no different than those for traditional transfer or native students. What may become obvious is that these variables worked differently for minority transfer students.

### Summary

The review of the literature has focused on a discussion of a select number of studies which are representative of retention literature. The analysis of previous studies indicated that we are not nearer to establish firm conclusions as to why students voluntarily decide to leave an institution. One major problem is the lack of uniform definitions of the constructs forming the conceptual basis of the theoretical models proposed by Tinto (1987) and Bean (1985). In the case of the former model for example, the construct of social integration works well for residential institutions, but not for commuter schools. Hence, the reason for the contradictions observed when that model was tested in large urban settings.

Bean's (1985) model, with its focus on tracking a causal path from attrition/persistence to certain institutional and student characteristics appears more promising. His introduction of the construct of intent as the most important mediator is valuable, particularly for institutions with large attrition rates. The focus on students' intentions provides a basis for institutions to develop efficient predictors and sound intervention strategies. Despite these caveats, the following factors dominate the literature and appear to be most related to student persistence and academic performance:

1. Pre-enrollment characteristics.
2. Academic and social integration.
3. Goal and institutional commitment.
4. Expectations of the institution.
5. Student's experiences at the institution
6. Student's intentions (to leave or persist).
7. Financial, family, and employment constraints.
8. Satisfaction with institution's services, and faculty.

### Chapter III

#### METHODOLOGY

##### Data Collection

The preceding chapter presented and discussed a review of the relevant literature. This chapter includes the methods and procedures of the study. It discusses the data collection, the selection of the study population, statement of the null hypotheses, how the variables were operationalized, and data analysis.

The present study took a correlational approach to research. That is, it examined the association of 22 independent variables against two dependent variables. This analysis allowed the researcher to examine a pool of minority transfer students after one academic year at the senior institution.

A transfer experience questionnaire was administered toward the end of the first academic year (Spring semester 1994). It was a 15-item questionnaire designed to obtain information about students' perceptions, experiences, and level of satisfaction with various aspects of the institution while enrolled at the institution. (A copy of this survey is included in Appendix A). This survey instrument was the concerted effort of this researcher, the director of Institutional Research, and a member of the

Institution's retention committee. Its development was primarily based on a survey used by Pascarella and Terenzini in 1980.

The Transfer Experience Questionnaire was mailed to students immediately after Spring Break (April), of 1994; including those students who did not return for the Spring semester. After two weeks a second questionnaire was sent to those students who did not respond to the first mailing; they were urged to respond. A third reminder was mailed to those students who had not responded after three weeks. Accompanying the survey was a stamped self-addressed envelope and a letter explaining the purpose of the study (See copy in Appendix B), and an explanation stating that the participation requested was completely voluntary. The letter also indicated to the participants that responses would be kept confidential and survey instruments would be destroyed after completion of final analysis. In addition, academic variables such as previous grade point average, as well as grade point average at the end of the academic year, were obtained from the institution's database for each respondent.

### Sample

The study was conducted at a large four-year commuter public institution, with an undergraduate population of approximately 10,000 students and a graduate population of



approximately 4,000 students. Transfer students at this institution constitute a sizeable proportion of the annual new student intake, and community college transfers, in turn, constitute a sizeable proportion of these transfer students (almost 43.7%).

Ideally a sample representative of the general minority transfer student population at this institution would have been selected; however, this was not possible due to resource constraints. The group would have included other students also identified as minorities (such as Asian Americans). Participants would have been selected at random from all minority transfer students at this institution.

The sample was drawn from the 569 full-time students who transferred to the institution in the Fall semester of 1993. Subjects for the study were all Black and Hispanic transfer students with 12 or more semester hours of course work transferred to this institution in this semester. One hundred and forty-two minority transfer students were identified through the institution's database. All 142 students were contacted by mail inviting them to participate in the study. Only 74 usable questionnaires were collected.

#### Operationalization of the Variables

Each variable used in this research was conceptualized as belonging to one of four components. The components are pre-enrollment characteristics, academic goal commitment,

academic integration, and social integration. The 4 components were derived from previous research that explored academic performance and persistence (See previous chapter of the review of literature).

The first component, pre-enrollment characteristics, consisted of 5 variables:

1. Attendance status at community college (A1)
2. Marital status (A2)
3. Previous grade point average (A3)
4. Type of degree obtained (A4)
5. Employment status (A5)

The second component, academic goal commitment, was measured by 11 variables:

1. Previous grade point average (A3)
2. Plan to obtain degree at this institution (B1)
3. Plan for the next academic year (B2)
4. Faculty concern for students (D2)
5. Students own rating of their academic performance (D3)
6. Students meeting at least one professor fairly well (D2-8)
7. Helpfulness of academic advisement (D2-12)
8. Accessibility of academic advisor (D2-13)
9. Perceived waste of time so far at this institution (D2-21)

10. Perceived intellectual development (D2-26)

11. Difficulty in financing rest of education (F1)

The third component, academic integration, was measured by one single variable:

1. Previous grade point average (A3)

The fourth component, social integration, was measure using 5 variables:

1. It is easy to make friends at this institution (E1-9)

2. Perceived personal development (E1-11)

3. Institution provides many diverse activities for students (E1-13)

4. Institution offers a lot of cultural events for students (E1-15)

5. Perceived differences in students' interests (E1-22)

Data on the dependent variables academic performance [measured by grade point average at senior institution (D1)], and persistence [measured by the Fall 1994 semester enrollment status (G1)], was obtained from institutional records after late registration for the Fall semester of 1994.

### Statistical Hypotheses

This research tested 4 hypotheses:

1. There is no relationship between minority transfer students pre-enrollment characteristics retention and academic performance.
2. There is no relationship between minority transfer students' level of academic integration, previous grade point average (GPA), and academic performance.
3. There is no relationship between minority transfer students' academic performance at the two-year college and their performance after one year at the transfer institution.
4. There is no relationship between minority transfer students level of social integration, and academic performance and persistence.

#### Data Analysis

The statistical analysis of the Transfer Student Experience Questionnaire was performed using the Statistical Software Package (1990). The 4 proposed hypotheses were assessed based on Spearman Correlation to determine those factors, which according to the literature best influence retention and academic success of minority transfer students, namely pre-enrollment characteristics, academic integration, social integration and goal commitment.

The Spearman Correlation provided a measure of linear association (pairwise) between two variables based on the ranking of the observations within each variable. The

correlation is a measure of the consistency with which respondents answered a particular question in comparison with another question. If a sufficiently strong pattern existed in the way respondents answered certain pairs of questions, then the null hypothesis,  $H_0$ : no association between "question A and B", could be rejected.

The risk of rejecting  $H_0$  when it is in fact true is defined as the significance level of the test. This study used 5% to be an acceptable risk for any statistical test. The test itself was based on a normal distribution, which is valid for sufficiently large samples by the Central Limit Theorem. In practice, a sample of  $n > 50$  (which is satisfied in this study) is considered to be sufficiently large. The term positive association was used as a descriptive interpretation of a statistical relationship between a variable and  $D_1, G_1$ , which can be considered a positive characteristic of the respondents.

## Chapter IV

### ANALYSIS OF THE DATA

The original sample consisted of 74 Black and Hispanic students who transferred to the institution in the fall of 1993. The demographic characteristics are presented in Table I. The data derived from the institutional records show that the majority of the 74 minority students in the sample were between the ages of 19 to 23 (45.9%). Hispanic students accounted for 54.1% of the sample, and 45.9% were African American. More than half of the population was female, 51.4%, and 48.6% were male. The vast majority of the students in this sample, 59.5%, transferred to this institution before earning an associate degree. A large portion of these students, 78% (N=58), were admitted to this institution through the regular admissions process, with 22% being admitted through an academic special program [11.8% Educational Opportunity Fund, 2% Program for Academic and Student Support, and 8.1% Weekend College}. The majority of the original group, 75.7% (N=56), were retained and were registered for the fall semester of 1994.

Table I

Characteristics of the Sample

SEX	N	%
Male	36	48.6
Female	38	51.4
AGE		
19-23	34	45.90
28-28	20	27.02
29-33	5	6.75
34-38	10	13.51
39-UP	5	6.75
ETHNICITY		
African American	34	45.9
Hispanic	40	54.1
COMM COLLEGE DEGREE		
AA	8	10.8
AS	16	21.6
AAS	6	8.1
None	44	59.5

Results

Grade point average (GPA), and persistence (D1 and G1, respectively), were correlated with 22 variables suggesting significant positive and negative associations. The pertinent variables that were tested against D\_1 and G\_1,

for each hypothesis and the correlation results are presented in Table II.

Of the 5 variables of pre-enrollment characteristics, only previous grade point average (A3) was strongly correlated with academic performance ( $r_s = 0.4746$   $p < 0.05$ ). This variable showed no correlation with persistence. Also, attendance status and marital status were both uncorrelated with academic performance and persistence.

Measurement of the relationship between academic goal commitment and academic performance and persistence, of the 11 variables used, showed that only plan for the next academic year (B2), was positively associated with both academic performance ( $r_s = 0.3172$   $p < 0.05$ ), and persistence ( $r_s = 0.3708$   $p < 0.05$ ). Three variables showed positive significant correlation for academic performance (G1): Faculty concern for students ( $r_s = 0.4023$   $p < 0.05$ ), students meeting at least one professor fairly well ( $r_s = 0.3093$   $p < 0.05$ ), and helpfulness of academic advisor ( $r_s = 0.3895$   $p < 0.05$ ).

There was no statistically significant correlation between the above 3 variables and persistence. There was also a strong but negative statistical correlation when academic performance was associated with the variable, perceived waste of time at this institution so far ( $r_s = -0.5070$   $p < 0.05$ ). Concurrently, there was a strong positive



correlation of this same variable when associated with the dependent variable persistence ( $r_s = 0.4909$   $p < 0.05$ ). For the variable, intellectual development, just the contrary occurred; a strong positive correlation was observed when the measure was associated with the variable academic performance ( $r_s = 0.5164$   $p < 0.05$ ), while a strong negative correlation was observed when associated with the dependent variable persistence ( $r_s = -0.5447$   $p < 0.05$ ).

Student's own rating of their academic performance variable displayed the strongest negative statistical correlation when associated with academic performance ( $r_s = -0.8642$   $p < 0.05$ ). At the same time, the association of this variable with persistence showed a negative statistical correlation ( $r_s = -0.3526$   $p < 0.05$ ). In addition, a modest statistical correlation was observed when academic performance was associated with students difficulty in financing rest of education ( $r_s = 0.3138$   $p < 0.05$ ). There was also a modest but negative correlation when this variable was correlated with persistence ( $r_s = -0.3228$   $p < 0.05$ ).

Previous grade point average was used to measure academic integration. The results showed a statistically significant correlation when this variable was in association with academic performance ( $r_s = 0.4746$   $p < 0.05$ ), but results also showed that this variable was uncorrelated when the association was performed with persistence.

Five measures were used for the social integration component. The correlation showed that the cultural events offered by the institution, and easiness to make friends at this institution, were statistically significant when associated with academic performance ( $r_s = 0.3152$   $p < 0.05$  and  $r_s = 0.3991$   $p < 0.05$  respectively).

In the case of the first variable (institution's cultural event offerings), it was uncorrelated when associated with persistence. The correlation for the second variable (easiness of making friends at this institution), resulted in a negative statistical correlation when associated with persistence ( $r_s = -0.3580$   $p < 0.05$ ). Furthermore, there was no significant correlation between the institution's many diverse social activities offered and academic performance and persistence.

A negative correlation was observed when the personal development variable was correlated with persistence ( $r_s = -0.3717$   $p < 0.05$ ). There was also a modest but statistically significant correlation between students' difference in interests and persistence ( $r_s = 0.3128$   $p < 0.05$ ). No statistically significant correlation was found when these two variables were associated with academic performance.

Table II

Correlation Results for each of the Components

1.Pre-enrollement Characteristics	Academic Performance	Persistence
A1	NS	NS
A2	NS	-0.2607
A3	0.4746	NS
A4	NS	0.2137
A5	-0.2722	0.2478
2.Academic Goal Commitment	Academic Performance	Persistence
A3	0.4746	NS
B1	-0.4383	0.3671
B2	0.3172	0.3708
D2-1	0.4023	-0.2918
D2-8	0.3093	-0.2729
D2-12	0.3845	-0.2814
D2-13	0.2887	NS
D2-21	-0.5070	0.4909
D2-26	0.5164	-0.5447
D3	-0.8642	0.3526
F1	0.3138	-0.3228

Table II (cont.)

3. Academic Integration	Academic performance	Persistence
A3	0.4746	NS

4. Social Integration	Academic Performance	Persistence
E1-3	0.2303	-0.2316
E1-5	0.3152	NS
E1-9	0.3991	-0.3580
E1-11	0.2697	-0.3717
E1-22	-0.2336	0.3128

Note. Significance levels (also called p-values) of the correlation test results in Table II are denoted as below.  
 $p < 0.05$  ( Significant correlation)  
 NS (uncorrelated)

### Discussion

The findings seemed to support a number of theoretical expectations found in previous studies. The influence of pre-enrollment characteristics in academic performance were primarily transmitted through minority transfer students' experiences at the community college, with the expectation of previous grade point average. The other measures were uncorrelated or had non-significant associations.

As expected, academic goal commitment and academic integration measures play an important role in both academic performance and persistence; hence most of the measures used were correlated. In the case of the previous grade point

average variable, it had a significant correlation with academic performance but it was uncorrelated to persistence in all three components.

The significant correlations found between goal commitment, academic integration, and academic performance and persistence tend to support what other studies have found. That is, high levels of academic integration and high levels of goal commitment would tend to be associated with high levels of academic success and persistence to the next academic year.

Of the variables used to measure goal commitment, students' own rating of their academic performance was by far the strongest variable when associated with academic performance ( $r_s = -0.8642$   $p < 0.05$ ), followed by the perceived intellectual development variable ( $r_s = 0.5164$   $p < 0.05$ ). This finding suggests that after one year at the institution goal commitment is largely defined by minority transfer students' successful interaction with the academic environment of the institution, and to a lesser degree with the social system of the institution.

The finding of this study also may indicate that after one year at the senior institution minority transfer students with higher transferred GPA's, and higher commitment to the academic system of the institution were less committed to the social environment than were students

with lower transfer GPA's and lower academic integration. The data collected from this study also supports the fact that minority transfer students who had contact with faculty and academic advisors were more integrated into the academic system, and more likely to persist to the next academic year. However, the accessibility of the academic advisor was uncorrelated with persistence. Based on the data collected for this study, the variable with the strongest correlation with persistence, among minority transfer students, was perceived intellectual development.

The roles played by the variables used to measure social integration were somewhat supportive of other findings in the literature. The hypothesis that the influence of social integration on academic success and persistence is indirectly transmitted through goal commitment and academic integration measures was partially supported by the findings of this study. The variable, it is easy to make friends at this institution, accounted for the strongest correlation with academic performance. That is, the easier it is to make friends at this institution the more likely the student is to succeed.

Social integration had a positive association with goal commitment and academic integration but also had a negative association with persistence. Furthermore, cultural events offerings was uncorrelated to persistence, but it was

positively correlated to academic performance. That is, social integration as measured by this variable had a positive relationship with academic integration and goal commitment but has no relationship at all with persistence decisions.

The findings of this study show that the interactions of these variables produce a significantly greater association with academic performance than with persistence. Thus, it appears that academic integration and goal commitment (as measured by previous grade point average), and social integration (as measured by easiness to make friends at this institution, perceived personal development, and cultural activities offerings), played an important role in determining whether minority transfer students succeed at this institution; but it does not in their persistence decisions.

The findings suggest that minority transfer students' academic performance could be defined by successful and personal interaction with the institutional academic and social environments. Persistence can be defined as the successful interaction with the institutional academic environment and to a lesser degree by the interaction of the social system of the institution. The influence of pre-enrollment characteristics had no significant relationship with academic performance and persistence; the association

of the previous grade point average variable with academic performance is the only exception. As stated before, this variable (used as a pre-enrollment characteristic) was uncorrelated to persistence.

Given past research on academic performance and persistence of minority transfer students, the researcher expected that the examination of correlates of minority transfer students' academic performance and persistence would shed light on issues pertaining to the topic. Indeed the findings of the present study do not differ significantly from those in previous studies. As stated in the review of the literature, earlier studies have found strong relationships between most of the variables of interest and academic performance and retention. Such studies have investigated the relationship for different groups of students; however, few studies have focused specifically on the academic performance and retention of minority students once they have transferred to a four-year institution. While few such studies are extant, the results appear to support the findings of the present study.

Additionally, this study found that the previous grade point average variable had a strong significant correlation with pre-enrollment characteristics, goal commitment, and academic integration. This finding supports previous studies, which contended that previous academic performance



is the best predictor of academic performance at the senior institution. Researchers have consistently used GPA to measure academic performance and persistence (Eimers & Mullen, 1997; Townsend, McNerny, & Arnold, 1993; Hughes & Graham, 1992; Jones & Lee, 1992; Phlegar, Andrew & McLaughling, 1981). Results are mixed, but trends have been consistent. When measuring academic performance and persistence of transfer students, minority transfer students are not significantly different (Donovan, 1984; Nora & Cabrera, 1996; 1994).

The data collected for this study also showed that there was a decline in GPA immediately after transfer. As shown in Table III, minority transfer students obtained significantly higher GPA's at the community college than after one year at the senior institution. Almost 91.9% of students obtained a GPA between 2.00 and 3.49 at the community college while only 64.8% obtained the same GPA at the senior institution. All minority transfer students in the sample entered the senior institution with a GPA of 2.00 or higher. At the end of the first academic year 23% had a GPA lower than 2.00. However, 8.1% of students transferred with a GPA of 3.5 or higher. At the end of the first academic year 12.2% of minority transfer students had a GPA of 3.5 or higher.

Table III

Cum. GPA for the Total Cohort

GPA	At Community college		At this Institution	
	N	%	N	%
0.00-1.99	0	--	17	23.0
2.00-2.99	36	48.7	25	33.7
3.00-3.49	32	43.2	23	31.1
3.50-Up	6	8.1	9	12.2
Total	74	100.0		100.0

Note. Mean community college GPA 2.59  
Mean cumulative GPA at transfer  
Institution at the end of first academic year 2.34

These findings are consistent with what Townsend, McNerny, and Arnold (1993) found in a study of the academic performance of students who transferred from a suburban community college to a private, moderately selective urban university. The authors reported that the average cumulative GPA at the university was lower than that earned at the community college. The average GPA at the community college was more than 2.9, while the average first term GPA at the university was not quite 2.4.

The findings are also consistent with those reported by Harbin (1997). In a survey of 85 students who transferred to a four-year institution from a community college in California, the author reported similar trends in grade point average attainments. Of the 65 % who transferred with

a GPA between 2.50 and 3.49, 71 % obtained a similar GPA after one year at the senior institution. The findings indicate that slightly more of the respondents were performing in the C-B range when transferring. Furthermore, 22% had a GPA of 3.50 or higher at the moment of transfer, while only 20% attained a similar GPA after one year at the senior institution. All respondents in Harbin's survey entered the senior institution with a GPA of 2.00 or higher.

According to the data collected for this study 75% of minority transfer students expected to achieve a 3.00 GPA or higher at the senior institution. This finding suggested that like traditional transfer students, minority transfer students also tend to hold false expectations of the receiving institution. These false expectations later impact their level of academic and social integration. Furthermore, their commitment to an academic goal affects their academic performance and potential retention.

The findings of this study are also consistent with earlier studies on traditional transfer students conducted by Donato (1973) and Buckley (1971) who concluded that prior to matriculation, transfer students hold incongruent expectations of the academic environment of the four-year institution. In other words, transfer students tend to exaggerate the social and academic environments prior to

enroll. This is a source of transfer shock and requires adjustments for later academic performance.

In a more recent study, Smeadley, Myers, and Harrell (1993) also suggested that community college transfer students might hold inaccurate perceptions of the academic expectations of a larger institution. The authors found that over 40% of the transfer students did not achieve satisfactory academic performance or dropped out during the first semester of coursework. This contrasts with the rather optimistic expectations of the subjects; 75% expected to achieve a 3.0 GPA or higher at the senior institution.

The results of this study support the idea that minority transfer students' academic experience, and their satisfaction with the various aspects of campus life and support services, play a more important role in their persistence. The above two variables are more important in measuring persistence than are the characteristics students bring prior to enrollment.

As the literature suggests, the majority of students, particularly minority students, leave college because they are dissatisfied with their college experience (Cuseo, 1993), and not for personal reasons (Willingham, 1985; Noel, 1985). Prior to Cuseo's research, Donovan, (1984) arrived at the same conclusion. In a study of persistence in higher education among low-income black youths, the author

concluded that the nature of the college experience for low-income black students is more significantly related to persistence than their academic backgrounds and pre-enrollment characteristics.

More recently, Hurtado, Faye Carter and Spuler (1996), in a study to understand the factors that affect Latino students adjustment to college, also found that the in-college experience affects college adjustment far more than students background characteristics. In order to improve college adjustment, the authors suggested that policymakers should look beyond individual factors and consider aspects of the campus climate. As Tinto, (1987) stated, "Student retention is at least as much a function of institutional behavior as it is of student behavior" (Pg.177). Thus institutional behavior can have a dramatic impact on student retention, particularly minority student's retention (Cuseo, 1993). Student satisfaction with the college experience depends much more than any other outcome measure on the characteristics of the institution, rather than the pre-enrollment characteristics of the students (Astin 1977).

Desler (1985), in a study to test Tinto's theoretical model of college student persistence among transfer commuter students, also concluded that what happened during the transfer student's first year at the institution was more

important in explaining persistence/withdrawal behaviors than were the characteristics the student possessed prior to matriculation. Thus, if minority transfer students are not satisfied with the senior institution, they are less likely to succeed at the four-year institution.

Minority transfer students at this institution appeared to be generally satisfied with most institutional services and facilities over a year period. The majority of the minority transfer students perceived that the efficiency, courtesy and capacity of service showed by staff in various offices positively impacted their quality of life and decision to persist. The Registrar Office, the Financial Aid Office, and Career Services were rated as the most supportive. The Tutorial Center, the Bursar's Office and Security were also rated as satisfactory.

The results of the study also indicate that minority students' satisfaction with their academic experience and level of involvement with the institutional environment play a significant role in their academic performance and persistence to the next academic year. At the same time, their involvement in the social environment of the institution effects their perceptions of the quality of academic life. Pascarella, Smart and Ethington (1986) studied the long-term persistence of two-year college students. This study is a clear illustration of how

important it is for community college transfer students to become academically and socially integrated into the institution. This study showed that minority transfer students' academic performance is related primarily to their perception of how they fit into the institutional social and academic environments.

Minority transfer students with GPAs higher than 2.99 were more likely to indicate that they would return for the next academic year. Almost all stated that they would most likely continue at this institution. Only 8.1% (N=6) stated that they intended to transfer to another institution. Of the total sample, 66.2% (N=49) indicated that they plan to go to graduate school. This percentage serves as a proxy measure of minority transfer students' educational aspirations. Entry into a graduate program indicates anticipation of more time spent furthering their education. Only 1.3% (N=1) intended to drop out of higher education. The majority of respondents stressed the importance of the academic and career preparation they have received thus far. They felt that the institution had influenced them in areas of personal growth and development as well.

The persistence rate for the cohort of this study was 75.7% (N=56) as compared to 24.3% (N=18) for minority transfer students who did not persist (see Table IV). Moreover, the persistence rate for Hispanic students was

higher than the persistence rate of Black students. The non-persistence rate for Black students was also higher than the drop out rate for Hispanic students. The high level of persistence explains the expressed degree of satisfaction with their academic experience over the academic year under study.

Table IV

Total Number of Persisters and Non-Persisters

Ethnicity	Persisters		Non-Persisters			
	N	%	N	%		
Black	23	31.8	11	14.8	34	45.9
Hispanic	33	44.5	7	9.4	40	54.1
Total	56	75.7	18	24.3	74	100.0

The written comments of both persisters and non-persisters were interesting and worth mentioning. The comments expressed the disappointment of the inability to transfer to their major of choice and apply all their credits to that major (particularly Business, Teaching, and Home Economics). Donovan, Schaier, and Forer (1987) stated that a major factor in community college students' failure to attain a baccalaureate degree at some time was the difficulty of transferring all the credits they had earned in community college. A phenomenon also noted in less recent



studies (Knoelle & Medsker, 1965; Phlegar, Andrew & McLaughling, 1981; Van Alstyne, 1974).

This issue of not being able to use all the credits one has earned at the community college level is still a concern. Allowing students to major in the field of their choice, and accepting most, if not all, of the credits earned will positively influence transfer behavior toward the academic environment.

Accepting the transfer of most credits could also improve the minority transfer student's (goal) commitment to a course of study. Especially since the minority transfer student has probably experienced previous success in this chosen area, which most likely represents a chosen professional direction. It may also provide a more structured environment and clearer expectations of the student. At the same time, accepting credits will facilitate transfer and adjustment, reducing the risk of transfer shock. The reduction of transfer shock is important since very large institutions, like this one, could make what Lee, Makie-Lewis, and Marks (1993) termed "fitting-in", a difficult process for some students. These authors also stated that large minority enrollments might ease the adjustment for minority students as well.

Despite those shortcomings, both, persisters and non-persisters were satisfied with most aspects of this institution.

## Chapter V

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

Many variables affect a minority transfer student's academic performance and decision of whether to persist or not. Some of these variables are linked to the characteristics these students bring with them, while others rely more on the interactions of this particular type of student with the social and academic systems of the receiving institution. When minority transfer students are compared with native transfer students, it seems that all share the same characteristics. Thus, Moore's (1981) definition of transfer student could very well suit the minority transfer student as well. He defines a transfer student as a heterogeneous, demographically diverse group from two-year to four-year colleges or viceversa.

Many earlier studies examined the academic performance of transfer students and have observed that students who transfer appear to have some difficulty adjusting to the four-year institution. Similar results were observed in this study. The data indicated that minority transfer students experienced the transfer shock phenomenon originally used by Hill (1965), to describe the temporary decline in GPA experienced by many transfer students during their first year at the new institution. The same phenomenon

was observed by Pascarella and Terenzini (1991), Best and Gehring (1993), and Hughes and Graham (1992).

The major purpose of this study was to explore those factors, which appear most closely related to minority transfer students' academic performance and retention at a four-year public institution. The results indicated that there were significant relationships with those variables already identified in the literature as related to academic performance and retention. The results confirmed previous evidence of transfer students' performance during their first year at the transfer institution. Since the present study was undertaken to identify those factors that influence minority transfer students' academic performance and retention at the senior institution, it thereby may offer predictive assistance in identifying those minority transfer students who are most likely to succeed.

Results of this study suggest that minority transfer students possess, to a high degree, the demographic and academic characteristics and the motivational attitude that have characterized traditional college transfer students who were categorized as persisters in other studies. In addition, the minority transfer students' responses showed a high level of intent to persist to the next academic year. The study also showed that academic integration had a stronger correlation with persistence than social integration. Hence, the findings suggest that at this

institution, academic integration may have a more influential role in further predicting minority transfer students persistence than does social integration. This finding could also imply that minority transfer students perceive that engagement in traditional social and cultural activities is detrimental to their academic performance affecting in turn, their level of goal completion.

This study also assessed the minority transfer students' overall satisfaction with their experiences. In general, they were satisfied with their overall experience at this institution. They also were more likely to obtain useful information from their academic advisors and other offices on campus. Apparently, their transfer experience was accentuated by their academic experience within a year period. Overall, minority transfer students perceived that they had made positive progress towards reaching their goals. Furthermore, they tended to be quite positive about the amount of personal and intellectual growth they have accomplished during their first year.

In summary, there have been many discussions and debates about the role of institutional factors in the likelihood of a student persisting to graduation. The results of this study indicate that institutional experiences, academic integration, social integration, and goal commitment were important in the academic performance

and persistence decisions of minority transfer students. Consistent with other studies (Harbin, 1997, Townsend, McNerny, and Arnold, 1993, Cabrera, Nora & Castaneda, 1993; Pascarella & Terenzini, 1980) was the correlation of grade point average with academic performance.

Pre-enrollment variables were found to have no correlation with persistence. The most significant correlation with academic performance, under the component of pre-enrollment characteristics, came from previous college experience, as measured by grade point average. Considering the importance of persistence, it is imperative that institutional administrators not discount any factor, associated or not with minority transfer students decisions to reenroll or dropout from an institution. Evidence of future studies using these same variables could be helpful in guiding institutional research on how best to influence minority transfer students academic performance and persistence.

#### Implications for Institutional Policy

As the new millenium approaches, the continuously changing nature of the student population, coupled with the increasing enrollment projections of transfer students, indicates a continued reliance on this type of student to

ensure institutional survival. Although this institution has assumed the responsibility of addressing the needs of minority students, institutional reports consistently recognize that White students are persisting at a higher rate than minority students. This discrepancy in retention prompted the institution's administrators to assert the roots of minority transfer attrition concurrent with the growing concern found in the literature for the need to develop sound strategies to change the pattern of attrition of this type of student.

This research on minority transfer students academic performance and persistence conducted at this particular institution has two things in common to the institution's administrators' concerns. First, the study examined the relationship of minority transfer students' pre-enrollment characteristics, academic and social integration, and goal commitment to institutional variables. Second, the study examined previous research on the two most frequent models used for the investigation of the causes of attrition. The results of the study confirmed that despite the limitations of these models, what happens within the academic and social environment of the institution shapes the students' experiences and strongly influences minority transfer students' decision to stay or leave.

The research reviewed here leads to two conclusions. First, the institution must strive to find ways to channel

more resources into areas of support services and dropout prevention programs, in the hopes of enhancing the opportunities of minority transfer students who are in danger of dropping out. Second, regarding the distribution of available resources, this research showed that the institutional environment is positively associated with the academic performance and persistence of minority transfer students. Therefore, the institution must make it clear that the priority regarding the use of available resources is positively related to retention. Thus, the amount of resources spent per transfer student should be equal to the amount spent per freshman.

The logical approach that administrators at this institution should take would be to develop strategies to foster minority transfer students academic and social integration. This social integration might further strengthen their academic goal commitment. Administrators should make a consistent effort to identify the forces that are not working in the mediation between minority transfer students and the academic and social environments. Following, they should assign the necessary resources to provide a more intrusive service.

Data on transfer students at this institution was very scarce. Administrators should explore mechanisms to gather information on minority transfer students needs. The information gathered could provide valuable data for



developing institutional support programs and restructuring the existing ones. This would obviously lead to the collection of valuable information for a scholarly examination of the persistence process of the minority transfer student at this institution; hence the need to rely on sporadic reports would be obsolete.

The present study should serve as the basis for the development of a database of institutional factors critical to the examination of the minority transfer students' academic experience. A follow-up study with a larger proportion of the sample population would possibly allow for a more focused examination of other variables responsible for predicting minority transfer students persistence/withdraw decisions. With greater specificity, the policy implications derived would be more appropriate, not only for the minority transfer student, but for all the transfer student populations as well.

At the National Transfer and Articulation Symposium that this researcher had attended, sponsored by the University of Arizona, it was clear that there is a trend in America colleges and universities nationwide toward strengthening institutional agreements and support services for transfer students. It seems that articulation agreements between a two-year and a four-year institution are no longer the only tool needed to guarantee the transfer students' accessibility, retention, and academic success. The

increasing number of students transferring from community colleges to four-year institutions all over America has warranted the restructuring of existing transfer services to a more cohesive, facilitative unit which will meet all the needs of this diverse segment of the student population.

The programs that are in place now at national level are in response to an urgent need to eliminate inconsistencies in the transfer process and to ensure a smooth transition from one institution to another. Today, with the changing demographics, twice as many traditional and non-traditional students are completing one and two years of community college before transferring to a four-year institution, and as their needs increase, so do the demands for more and better services.

A Center for Transfer Students was established at the University of Arizona to specifically address the issue of new transfer student retention. The center is comprised of 6 programs that meet the divergent needs of the minority transfer student population attending the university, namely Native Americans, Latinos, and African-Americans. Two of these six programs have been specifically designed to help overcome the institutional barriers encountered by African-Americans and Hispanics and to provide guidance for their social and academic integration. A Summer Institute has also been formed to ease the transition to the University while preparing the transfer students for their coursework by

challenging them and enrolling them in rigorous writing and oral skills programs. This Summer Institute gives preference to underrepresented ethnic/racially diverse students.

Approaches like institutional agreements, statewide articulation committees, common courses and common course numbers, among others, have been adopted to facilitate the transferability and applicability of credits between learning institutions. In Alabama, for instance, the legislature passed a law to create a committee responsible for developing a statewide agreement for the transfer of credits among all of its institutions of higher learning. Massachusetts has implemented a Joint Admissions Agreement, which allow students to be admitted simultaneously to a community college and a four-year institution.

The Articulation Coordinating Committee created in Florida includes not only representatives from the university and community college systems, but also from the vocational centers and the public schools. Its primary function is to ensure that the transfer policies and practices allow for a smooth transition of high school graduates from one level of education to another.

Although the institution at which this study was conducted is responding to the trends specified above by implementing an audit system of transfer credits and establishing a transfer and articulation office, the support services for transfer students are housed in separate

offices. This creates confusion and a duplication of services. It is time for this Institution to take steps to establish a central location to address the needs of the new transfer students with built-in programs specifically designed to serve underrepresented ethnic and racial minorities. The rationale for this centralized service is to expedite the transition of transfer students with minimum confusion to the student and with little cost in time and money to the Institution.

Administrators at this institution should take the initiative to contact the Council of College Presidents to begin a statewide articulation agreement. This would afford the opportunity for the students who earn an Associate degree to apply all of these credits towards their Bachelor's degree, specifically the upper level courses. A booklet could be drawn up listing transferable courses based on comparability rather than equivalency. This booklet could be incorporated into the existing electronic audit system.

#### Recommendations for Further Research

1. The present study was exploratory in nature. No attempt was made to establish causal relationships. Future research needs to be conducted to establish those causal relationships and to identify successful predictive models and create new ones.

2. There is a persistent conception of the negative influence of community college attendance on the probability of student's eventual graduation from college, (Alba & Lavine 1981; Anderson 1981; Brint & Karabel 1989; Dougherty 1991; Velez 1985). Further follow-up research is needed to investigate the academic performance and persistence to graduation of minority transfer students.

3. Feldman and Newcomb (1969) once argued that the second year of college is a time when students become more dissatisfied and may experience what they termed a "sophomore slump". Corroborating this argument Hurtado, Fayer, and Spuler (1996), also stated that students may experience additional difficulties after their first year of college. Similarly, minority transfer students may be experiencing a "junior slump", because many of them transfer as juniors. Therefore, the follow-up research on minority transfer students should be carried beyond the sophomore academic year.

4. Social backgrounds influence school performance through the mediation of academic behaviors (Lee, Mackie-Lewis, & Marks 1993). Therefore, research examining minority transfer students' behaviors that could be related to academic performance and persistence to graduation (i.e.: coursework taken, club membership, commuter v. non commuter, major, stress related factors, etc.) should be conducted.

5. It would also be interesting to follow-up on those students who did not return the survey to find out whether they dropped out, transferred, or persisted at this institution.

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## Appendices

**Appendix A**  
**Transfer Student Experience Questionnaire**

## **FOLLOW-UP SURVEY: TRANSFER STUDENT EXPERIENCE**

The information you supply will be kept completely confidential. No one at this institution will have access to your responses. Your social security number will enable me to match this information with other relevant data. Neither your name, nor the name of the institution will be used in the report. Please answer all items. If, however, you have strong objections to answering any item, feel free to omit it.

This study has the full approval of the institution's Office of Institutional Research. The questionnaire should take about 20 minutes of your time. Kindly return the completed questionnaire in the enclosed self-addressed envelope as soon as possible.

Thank you..



## FOLLOW-UP SURVEY: TRANSFER STUDENT EXPERIENCE

NAME: \_\_\_\_\_

SOCIAL SECURITY #: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

1. What was the last college you attended prior to enrolling at this college? \_\_\_\_\_

2. When did you first enroll at that college? \_\_\_\_\_

3. What was your attendance status? (Circle one answer)

1. full-time

2. part-time

4. Did you ever stop out for a semester while at your previous college? (Circle one answer)

1. yes (go to item 5)

2. no (go to item 6)

5. What were your reasons for stopping out? (Circle all that apply)

1. financial problems

3. work/school conflict

2. personal problems

4. academic difficulty

6. What was your major at your previous college? \_\_\_\_\_

7. What is your current major? \_\_\_\_\_

8. Are you currently employed? (Circle one answer)

1. No

4. Yes, 21-30 hrs a week

2. Yes, 1-10 hrs a week

5. Yes, 31-40 hrs a week

3. Yes, 11-20 hrs a week

6. Yes, over 40 hrs a week

9. Do you expect it will be difficult to finance the rest of your college education?  
(Circle one answer)

1. Yes, very difficult. I may have to leave.

2. Yes, difficult, but I will most likely continue.

3. Yes, somewhat difficult, but I will certainly continue.

4. No, I don't expect any problems.

10. What is your marital status? (Circle one answer)

- |                             |                           |
|-----------------------------|---------------------------|
| 1. married with child(ren)  | 4. divorced, no child     |
| 2. married, no child        | 5. single with child(ren) |
| 3. divorced with child(ren) | 6. single, no child       |

11. Listed below are several services provided by the college. Please rate your level of satisfaction with each.

	5	4	3	2	1
	Very Satisfied	Satisfied	No Opinion	Dissatisfied	Very Dissatisfied
1. Tutorial services	_____	_____	_____	_____	_____
2. Financial aid services	_____	_____	_____	_____	_____
3. Employment services	_____	_____	_____	_____	_____
4. Career counseling	_____	_____	_____	_____	_____
5. Computer laboratory facilities	_____	_____	_____	_____	_____
6. Food services	_____	_____	_____	_____	_____
7. Parking facilities	_____	_____	_____	_____	_____
8. Recreation/athletic programs	_____	_____	_____	_____	_____
9. Business Office	_____	_____	_____	_____	_____
10. Registration	_____	_____	_____	_____	_____
11. Bookstore	_____	_____	_____	_____	_____
12. Campus security	_____	_____	_____	_____	_____
13. College cultural activities	_____	_____	_____	_____	_____
14. Transfer students' orientation	_____	_____	_____	_____	_____

12. From your experiences at your institution, how would you respond to the following statements?

	5	4	3	2	1
	Strongly Agree	Agree	Not Sure	Disagree	Disagree Strongly
1. Most faculty members at this college show a high regard for students.	_____	_____	_____	_____	_____
2. On the whole, the quality of the courses I have taken has been very high.	_____	_____	_____	_____	_____

- |   |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|
| 3. The college provides many diverse activities for its students.             | _____ | _____ | _____ | _____ | _____ |
| 4. Faculty members care about the individual student.                         | _____ | _____ | _____ | _____ | _____ |
| 5. The college offers a lot of cultural events and programs to students.      | _____ | _____ | _____ | _____ | _____ |
| 6. The laboratories and classroom are of a high quality.                      | _____ | _____ | _____ | _____ | _____ |
| 7. There are a large number and variety of courses offered students           | _____ | _____ | _____ | _____ | _____ |
| 8. I feel I know at least one professor fairly well.                          | _____ | _____ | _____ | _____ | _____ |
| 9. It is easy to make friends at this college.                                | _____ | _____ | _____ | _____ | _____ |
| 10. I am confident that I made the right choice of a major.                   | _____ | _____ | _____ | _____ | _____ |
| 11. I feel that I have developed personally since I came.                     | _____ | _____ | _____ | _____ | _____ |
| 12. My academic advisor is almost always very helpful.                        | _____ | _____ | _____ | _____ | _____ |
| 13. My academic advisor is easily accessible to me.                           | _____ | _____ | _____ | _____ | _____ |
| 14. The administrators at this college are helpful and courteous to students. | _____ | _____ | _____ | _____ | _____ |
| 15. It is easy for students to get help when they are in academic difficulty. | _____ | _____ | _____ | _____ | _____ |
| 16. Most of my courses so far are relevant to my career goals.                | _____ | _____ | _____ | _____ | _____ |
| 17. I feel I belong at this college.  | _____ | _____ | _____ | _____ | _____ |
| 18. I find my classes so far very challenging.                                | _____ | _____ | _____ | _____ | _____ |
| 19. I feel I made the right choice in coming to this college.                 | _____ | _____ | _____ | _____ | _____ |
| 20. I am sometimes afraid to approach a professor because of his/her manner.  | _____ | _____ | _____ | _____ | _____ |

21. I feel that I have wasted my time at this college so far. \_\_\_\_\_
22. Most of the students at this college have different interests from mine. \_\_\_\_\_
23. The Student Center has adequate recreational facilities. \_\_\_\_\_
24. There are ample lounge and study areas throughout the campus. \_\_\_\_\_
25. I feel that the college respects my views as a student and an individual. \_\_\_\_\_
26. Being at this college has helped me develop intellectually. \_\_\_\_\_

13. How would you rate your academic performance at this college so far? (Circle one)

- |       |             |
|-------|-------------|
| 1. A  | 4. C        |
| 2. B+ | 5. below C  |
| 3. B  | 6. not sure |

14. Do you plan to get your degree at this college? (Circle one)

- |  |  |
|--|--|
| 1. Yes, certainly                            | 4. No, I plan to transfer to another four-year college |
| 2. Probably, but not sure                    | 5. No, I plan to drop out of higher education          |
| 3. No, I will transfer to a two-year college |  |

15. What are your plans for the next academic year 1994-1995? (Circle one)

1. I will definitely continue at this college.
2. I will most likely continue at this college.
3. I will transfer to another college.
4. I am not sure.

16. If you wish to make any comments or suggestions about your experiences at this college, please use the lines provided below.

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Thank you for your participation. I wish you continued success.

**Appendix B**  
**Letter of Introduction**

Dear student:

My name is Pedro Zayas. I am a doctoral student. I am conducting this survey of transfer students who transferred to this institution at the beginning of the Fall 1993 semester as part of the requirements for the fulfillment of the doctorate in education at Seton Hall University in South Orange, New Jersey

The purpose of my study is to determine the factors that affect minority transfer students' academic success and persistence. I hope to share the results with the college administration and expect that the results will provide useful information that can be used to improve the chances of success of recently transferred students.

Participation in the study is voluntary and refusal to participate will involve no penalty or loss of benefits to which you would be otherwise entitled. I am, therefore, requesting your cooperation in this effort. Please answer all items in the enclosed questionnaire and kindly return the completed questionnaire in the enclosed self-addressed envelope as soon as possible.

The information you provide will be kept completely confidential. No one at this institution will have access to your responses. Your name as well as your social security number is optional but if provided will enable me to match this information with other relevant data. Neither your name nor the name of the institution will be used in the final report. All survey questionnaires will be destroyed at the conclusion of the research. Should you have further questions, please call me at 201-484-4894.

Sincerely,

Pedro Zayas